

What is claimed is:

1. A storage device system in a computer system having a plurality of superior devices and a plurality of storage device systems for receiving write-in data from at least one of the superior devices, comprising:

a physical storage device, in response to a logical volume which is controlled so that identical data is saved across the plurality of storage device systems, for storing data on the logical volume;

a device for saving such reception time that the write-in data was received from the superior device;

a communication interface device for transmitting the write-in data addressed to the logical volume and corresponding reception time to another storage device system and for receiving the write-in data and corresponding reception time from the storage device system; and

a data consistency holding control device for controlling so as to write write-in data which was received from the superior device and write-in data which was received through the communication interface device into the physical storage device after they are made to wait on a temporary storage device for more than predetermined time from the reception time corresponding to the write-in data to the logical volume, so that, when write-in data which was received from the superior device and write-in data which was received through the

communication interface device are written in an overlapped manner into the same storage location of the physical storage device, they are written in the order of the reception time.

2. The storage device system as set forth Claim 1, wherein the storage device system further has a table in which the reception times corresponding to each write-in data which is waiting in the temporary storage device are arranged in the order from an older one, and a device for searching write-in data as to which the more than predetermined time has passed from the reception time.

3. The storage device system as set forth in Claim 1, wherein the storage device system further has a bit map table for setting whether or not each block of the write-in data exists in the temporary storage device with a bit value, and a device for judging whether or not new write-in data is written in an overlapped manner into the same storage location as the other write-in data with reference to the bit map table.

4. The storage device system as set forth in Claim 1, wherein the storage device system further has a device for receiving a request for locking a partial region of the logical volume from the superior device and for locking the partial region, a device for transmitting the locking request which was received through the communication interface device to the other storage device system, a device for receiving the locking request through the communication interface device from the other storage device

system and for locking a partial region designated, and a device for rejecting a request of write-in data from the superior device and the other storage device system to the partial region, except such a case that it is a request from the superior device in which the partial region was locked.

5. A storage device system in a computer system having a plurality of superior devices and a plurality of storage device systems for receiving write-in data from at least one of the superior devices, comprising:

a physical storage device, in response to a logical volume which is controlled so that identical data is saved across the plurality of storage device systems, for storing data on the logical volume;

a device for saving such reception time that the write-in data was received from the superior device;

a communication interface device for transmitting the write-in data addressed to the logical volume and corresponding reception time to another storage device system and for receiving the write-in data and corresponding reception time from the storage device system;

a table in which the reception times corresponding to each of write-in data from the superior device and write-in data from the other storage device system are arranged in the order from an older one; and

a data consistency holding control device for controlling

with reference to the table so as to write the write-in data to the logical volume as to which the more than predetermined time has passed from the reception time into the physical storage device in the order of the older reception time.

6. The storage device system as set forth in Claim 5, wherein the storage device system further has a device for receiving a request for locking a partial region of the logical volume from the superior device and for locking the partial region, a device for transmitting the locking request which was received through the communication interface device to the other storage device system, a device for receiving the locking request through the communication interface device from the other storage device system and for locking a partial region designated, and a device for rejecting a request of write-in data from the superior device and the other storage device system to the partial region, except such a case that it is a request from the superior device in which the partial region was locked.